

Los Angeles High-Speed Rail Case Study Summary



Los Angeles Mayor
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"The California High-Speed Rail project and expansion of our transit system will have a huge impact on the economy of Los Angeles. They will make our region more sustainable and livable by providing viable alternatives to driving, reducing traffic congestion, and improving air quality and public health.

The effectiveness of high-speed rail will be increased by expansion of our transit system. On November 4, 2008, 68% of the voters in Los Angeles County approved *Measure R*, a half-cent transportation sales tax that will generate almost \$40 billion in revenue over the next 30 years. The core program funded in *Measure R* is the expansion of our region's rail and busway network; including connections to the planned high-speed rail stations and extensions of lines already serving planned high-speed rail stations. The effectiveness of high-speed rail will be increased by expansion of our transit system. We are working to accelerate construction of 12 *Measure R* transit projects to 10 years instead of the 30-year plan (the '30/10 initiative').

High-speed rail and public transit will yield important economic benefits for Los Angeles and help transform our city and region into a more sustainable and livable metropolis."

City and Region Definition. Within the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura, the City of Los Angeles has a population of 4 million; the metropolitan area has 12.9 million. The broader, consolidated metropolitan area has nearly 18 million. Private employers generate 7.3 million jobs in the region.

Economy. While the Los Angeles area is most well known for its film, entertainment and tourism industries, it is also the site of the most active seaport in the Western Hemisphere in terms of both value of goods and tonnage, one of the most active airports in the nation for cargo and passengers, and the largest manufacturing center in the Western United States. Key industries include aerospace, computer and electronics technology, medical products, steel fabrication, fashion and apparel, international trade, as well as tourism. It is also a major national financial and banking center with strong ties to Asia. Much of the economic base depends on connectivity to other parts of California, the United States, and overseas.

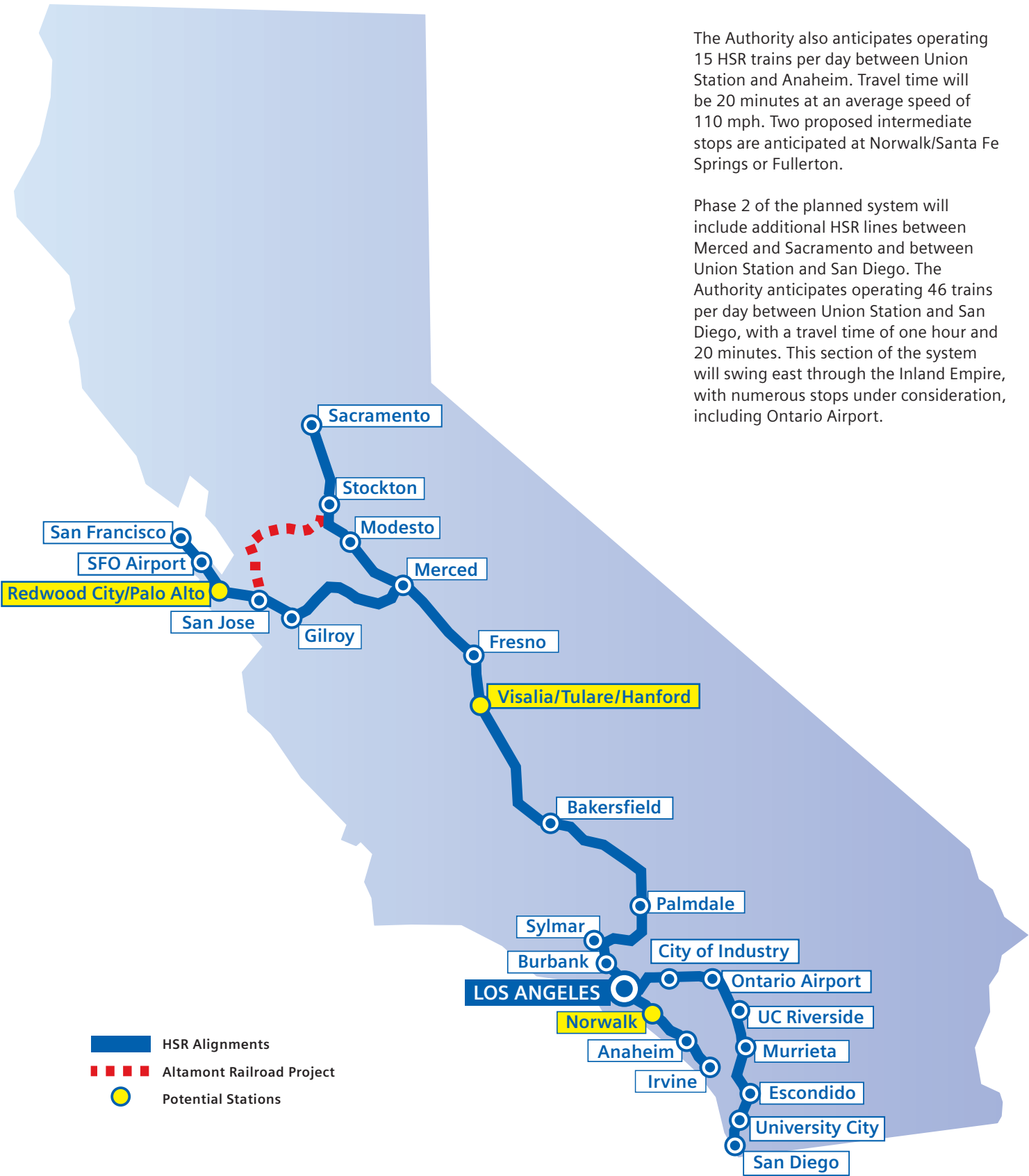
Proposed High-Speed Rail Routes

The planned California HSR service is designed for high-speed rail with widely spaced stops and speeds up to 220 mph for most of the distance from Sacramento to Fresno, Bakersfield, and Palmdale. From Palmdale southward through the entire Los Angeles region, the service operates at slower speeds resulting from physical constraints, such as track curvature typical for heavily urbanized areas.

Phase 1 of the planned system will include 500 miles of track that will transport passengers from Union Station in downtown Los Angeles to San Francisco in 2 hours and 40 minutes.¹ The California High-Speed Rail Authority (the Authority) anticipates operating 56 trains per day between Northern and Southern California, reaching speeds of up to 220 mph through the Central Valley. Ridership forecasts through 2025 estimate that the HSR line from Union Station to San Francisco will transport up to 120,000 passengers daily—including 80,000 long-distance passengers and 40,000 local passengers.

¹ California High-Speed Rail Authority, Dec. 2009 Report to the Legislature.

Figure 1. Proposed HSR Intercity Passenger Routes Serving Los Angeles





Los Angeles to:	220 mph
San Francisco	7,171,500
Sacramento	2,878,000
San Diego	2,278,800
TOTAL	12,328,300

Table 1. Estimated Los Angeles-Based 2035 Annual Ridership for HSR Service (one-way trips)

Ridership estimates are illustrative examples based on prior studies conducted for various HSR operating scenarios.

The services provided to new visitors should result in at least \$360 million per year of new spending in the downtown area, supporting roughly 4,000 hotel, restaurant and retail jobs in that area.

Based on current travel patterns by all transportation modes (auto, intercity air and bus) between city pairs, demand for 220 mph HSR service was estimated for both Phase 1 and Phase 2 service as proposed between Los Angeles and each of the major city pairs and intermediate stops: Sacramento, San Francisco and San Diego. Table 1 shows estimated annual demand for HSR used in this study.

Quantitative Assessment of Potential Economic Development Impacts

Travel Impact. High-speed rail service to and from the Los Angeles region is projected to capture roughly one-third share of the market for north-south travel by the year 2035. That represents around 34,000 trips daily (12.3 million trips per year). Of that number, more than half will be to or from Los Angeles Union Station; the rest will be to and from other key activity centers in the metropolitan area.

Types of Economic Impact. High-speed rail service will provide advantages to the City of Los Angeles and the entire metropolitan area as a result of reduced travel time and greater connectivity to outlying cities,

improved accessibility to broader labor and customer markets, as well as associated productivity gains and economy-of-scale benefits. The ability of high-speed rail services to expand labor markets and business travel opportunities also enables it to support the growth of the finance, insurance, and technology industries in downtown business districts as well as other office centers.

High-speed rail service may also provide opportunities for developing air service connections at the Burbank, Ontario and Palmdale stops, as well as LAX via Union Station. In addition, it will provide major urban development opportunities in the Alameda District surrounding Union Station as well as in areas surrounding the Palmdale and Anaheim stops.

Local Impact (Visitor Spending and Station Area Development). The establishment of downtown Los Angeles as the hub of an HSR system is expected to help generate additional economic activity. The services provided to new visitors should result in at least \$360 million per year of new spending in the downtown area, supporting roughly 4,000 hotel,

Table 2. New HSR Passengers Anticipated at Union Station, Daily, 2030

Category	Daily	Percent of Total
Total	14,100	
Local < 100 Miles	10,300	73%
Inter-Regional > 100 Miles	3,800	27%
Commuters	6,600	47%
Into Downtown	5,300	
From Downtown	1,300	
Business	1,600	11%
So. California Residents	1,100	
Long Distance Travelers	500	
Entertainment Shopping	6,000	43%
So. California Residents	4,500	
Long Distance Travelers	1,500	

Data Sources: California High-Speed Rail Authority, December 2009 Report to the Legislature; California High-Speed Rail Revenue and Ridership Forecasting Study, 2007. Assumes that 80 percent of commuters are traveling into the downtown area.

restaurant and retail jobs in that area. This impact is mainly due to HSR passengers embarking or disembarking at Union Station who would otherwise have traveled by air or car to and from other Southern California locations. A second segment of passengers will not create new positive economic impacts because they will simply be substituting a new mode of transportation for a trip they would otherwise have made by commuter rail or automobile. Based on visitor data from the Los Angeles Convention and Visitors Bureau, the impacts of each market segment include:

Workforce Commuters

- Approximately 5,300 workers per day will commute to the downtown area via HSR. These commuters will not generate any new positive economic impacts because they will simply be changing their transportation modes. Indirect positive impacts will be created by reducing automobile use, however. It is also possible that a segment of downtown workers will create new Transit Oriented Development (TOD) opportunities near the various stations on the system by choosing to live near HSR transit stops.

Local Business Travelers

- Approximately 1,100 Southern California residents will use HSR each day to travel downtown for business reasons. This market segment will not generate any new positive economic impacts because they will simply be changing the way that they travel to downtown. However, switching from automobile to high-speed rail will generate savings from reduced traffic, congestion, and air pollution.

Southern California Visitors

- HSR is expected to attract an additional 4,500 Southern California residents daily (1.64 million per year) to downtown Los Angeles for the arts, shopping, entertainment, food, and other activities. Essentially, the improved transit system will open the downtown area to a large segment of people who historically have avoided it due to congestion and perceived lack of parking.
- This translates into \$234 million of new spending annually in the downtown area.

Long-Distance Travelers

- An additional 2,000 trips per day are expected to be made from San Francisco and other parts of Northern California to downtown Los Angeles via HSR. It is likely that most of these long-distance travelers would not have made these trips without the HSR system. At least 25% of the trips are expected to be for business travel; the rest will be for leisure.
- Together, these trips will translate into \$126 million of new spending in downtown Los Angeles annually. This figure also includes likely gains by foreign and U.S. visitors to the Anaheim conference center and tourist attractions.

Table 3. Projected Annual Total Economic Impact of Los Angeles-based HSR Service in 2035 (2009 \$)

Measure	Unit	220 mph
2035 Employment	Jobs	54,056
2035 Output (Sales)	\$m per year	\$7,519
2035 Value-Added (GRP)	\$m per year	\$4,340
2035 Wages	\$m per year	\$2,977

These estimates of the potential economic impact are meant to be interpreted as potential impacts dependent on: (a) Full implementation of the proposed HSR system, (b) A metropolitan economy that remains healthy and continues to grow over the next twenty years, and (c) Supportive public policies and infrastructure investments to allow the benefits of HSR to be realized, and the projected additional business development to occur.

Office Development

- High-speed rail service will also support additional growth of office development downtown and at other locations served by HSR, particularly growth sites such as Palmdale. Potential growth at these areas is large. Proposed development plans for downtown (Alameda District) and Palmdale envision development for up to 21,000 new jobs in the long-term.
- That value is actually modest for the Los Angeles region as it represents just one-half of 1% of the current 3.8 million workers in the metropolitan area employment base. However, it is also clear that local access enhancements enabled by high-speed rail represents only one of many factors making the region an attractive location for business activity.

Regional Economy. Besides the direct growth of business activity supported by visitor spending, and the direct attraction of development around new HSR stations, the proposed rail service will have broader regional impacts on travel time and cost savings for train riders, as well as congestion reduction impacts for those still riding or driving cars and trucks. The proposed service will also provide regional productivity benefits in terms of economies of scale from broader labor and customer markets that can benefit the banking and finance industries, and linkages to partner firms in the medical, computer, aerospace, motion picture and entertainment

industries. These impacts, in addition to net expansion of visitor spending and office market attraction, will also lead to further “indirect” growth at suppliers to the growth businesses and “induced” growth supported by the additional consumer spending of worker wages. The total potential long-term economic impact of proposed high-speed rail service on the Los Angeles Metropolitan Area economy will grow over time as rail service is fully implemented and savings in travel time, expense and congestion reduction are realized.

- The estimated economic impact potential as of the year 2035 is \$7.6 billion per year of additional business sales, which annually includes \$4.3 billion of value-added (GRP). Of that value added, roughly \$3 billion is worker wages, supporting an additional 55,000 jobs. The impact will grow over time, so it will be expected to be less than this amount in earlier years, and potentially more in later years. It is also important to note that these different impact measures cannot be added because they are all alternative ways of measuring the same economic growth.